

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	0	(virtual near5 volume) same (proximit\$5) near5 (information input command)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 13:15
L2	0	(virtual near5 volume) same (proximit\$5)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 13:15
L3	10	(virtual near5 volume) same (proximit\$5)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 13:19
L4	0	(virtual near5 volume) same (proximit\$5) near5 (information input command)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 13:15
L5	0	(virtual near5 volume) same (proximat\$5) near5 (information input command)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 13:15
L6	9168	(copy) same (operation funct\$5) same (proximit\$5 proximat\$5 close\$5)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 13:22
L7	1216	(copy) near3 (operation funct\$5) same (proximit\$5 proximat\$5 close\$5)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 13:23
L8	63	(copy) near3 (operation funct\$5) same (proximit\$5 proximat\$5 close\$5) and (virtual physical) near3 (volume file storage)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 13:41
L9	7304	711/111,6,154,217,209,203,147,162,130.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 13:46
L10	3983	714/6,27,42,54,7,710,8.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 13:46

## EAST Search History

L11	8211	707/1,204,202,203.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 13:47
L12	572	((real adj volume) (physical adj volume)) and ((logical adj volume) (virtual adj volume))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 16:56
L13	158	L9 and ((real adj volume) (physical adj volume)) and ((logical adj volume) (virtual adj volume))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 13:49
L14	45	L10 and ((real adj volume) (physical adj volume)) and ((logical adj volume) (virtual adj volume))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 13:49
L15	62	L11 and ((real adj volume) (physical adj volume)) and ((logical adj volume) (virtual adj volume))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 13:50
L16	87	"709"/\$.ccls. and ((real adj volume) (physical adj volume)) and ((logical adj volume) (virtual adj volume))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 16:07
L18	216	"709"/\$.ccls. and ((real adj (storage)) (physical adj (storage))) and ((logical adj (storage)) (virtual adj (storage)))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 16:11
L20	364	L9 and ((real adj (storage)) (physical adj (storage))) and ((logical adj (storage)) (virtual adj (storage)))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 16:40
L21	144	L10 and ((real adj (storage)) (physical adj (storage))) and ((logical adj (storage)) (virtual adj (storage)))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 16:47
L22	122	L11 and ((real adj (storage)) (physical adj (storage))) and ((logical adj (storage)) (virtual adj (storage)))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 16:41
L23	122	L11 and ((real adj (storage)) (physical adj (storage))) and ((logical adj (storage)) (virtual adj (storage)))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 16:47

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L24	5	((real adj volume) (physical adj volume)) and ((logical adj volume) (virtual adj volume)) same (proximity vicinity)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/22 16:58
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## » Key

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IEE JNL IEE Journal or Magazine

IEEE CNF IEEE Conference Proceeding

IEE CNF IEE Conference Proceeding

IEEE STD IEEE Standard

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IEEE JNL IEEE Journal or Magazine

IEEE JNL IEE Journal or Magazine

IEEE CNF IEEE Conference Proceeding

IEEE CNF IEE Conference Proceeding

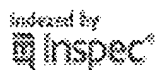
IEEE STD IEEE Standard

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IEEE JNL IEEE Journal or Magazine

IEEE JNL IEE Journal or Magazine

IEEE CNF IEEE Conference Proceeding

IEEE CNF IEE Conference Proceeding

IEEE STD IEEE Standard

[Select All](#) [Deselect All](#)**1. The storage server as virtual volume manager**

Buck, A.L.; Coyne, R.A.;

Mass Storage Systems, 1993. 'Putting all that Data to Work'. Proceedings., Tw Symposium on

26-29 April 1993 Page(s):79 - 86

Digital Object Identifier 10.1109/MASS.1993.289774

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Relevance scale ☐ ☐ ☐ ☐ ☐1 [Market strategy via simulation](#)

K. Roscoe Davis

January 1974 **Proceedings of the 7th conference on Winter simulation - Volume 2**

Publisher: ACM Press

Full text available: pdf(773.42 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

A firm's success within a fast growing and dynamic market depends upon its ability to respond to market demand and to react to competitive forces. A key element determining success is the pricing policy of the firm. But, product pricing is not simple, supply and demand as well as the interaction and reaction of competitors must be taken into consideration. By simulating a competitive market environment, however, a firm should be able to evaluate different pricing strategies prior to employi ...

2 [The high performance storage system](#)

R. A. Coyne, H. Hulen, R. Watson

December 1993 **Proceedings of the 1993 ACM/IEEE conference on Supercomputing**

Publisher: ACM Press

Full text available: pdf(1.05 MB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)3 [Sorting nonredundant files—techniques used in the FACT compiler](#)

John B. Glore

May 1963 **Communications of the ACM**, Volume 6 Issue 5

Publisher: ACM Press

Full text available: pdf(1.02 MB) Additional Information: [full citation](#), [abstract](#), [citations](#)

Some typical file structures, including some called "non-redundant," are examined, and the methods used in FACT to sort such files are discussed.

4 [IEEE storage system standards](#)

Bruce K. Haddon


January 2001 **ACM SIGOPS Operating Systems Review**, Volume 35 Issue 1

Publisher: ACM Press

Full text available: pdf(801.29 KB) Additional Information: [full citation](#), [index terms](#)

##### 5 Pilot: an operating system for a personal computer



 David D. Redell, Yogen K. Dalal, Thomas R. Horsley, Hugh C. Lauer, William C. Lynch, Paul R. McJones, Hal G. Murray, Stephen C. Purcell  
February 1980 **Communications of the ACM**, Volume 23 Issue 2

**Publisher:** ACM Press

Full text available:  [pdf\(1.14 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#)

**Keywords:** file, high-level language, modular programming, network, operating system, personal computer, process, system structure, virtual memory

##### 6 Creating volume models from edge-vertex graphs



 Patrick M. Hanrahan  
July 1982 **ACM SIGGRAPH Computer Graphics , Proceedings of the 9th annual conference on Computer graphics and interactive techniques SIGGRAPH '82**, Volume 16 Issue 3

**Publisher:** ACM Press

Full text available:  [pdf\(740.65 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)


The design of complex geometric models has been and will continue to be one of the limiting factors in computer graphics. A careful enumeration of the properties of topologically correct models, so that they may be automatically enforced, can greatly speed this process. An example of the problems inherent in these methods is the "wire frame" problem, the automatic generation of a volume model from an edge-vertex graph. The solution to this problem has many useful applications in ...

##### 7 Random I/O scheduling in online tertiary storage systems



 Bruce K. Hillyer, Avi Silberschatz  
June 1996 **ACM SIGMOD Record , Proceedings of the 1996 ACM SIGMOD international conference on Management of data SIGMOD '96**, Volume 25 Issue 2

**Publisher:** ACM Press

Full text available:  [pdf\(1.17 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

New database applications that require the storage and retrieval of many terabytes of data are reaching the limits for disk-based storage systems, in terms of both cost and scalability. These limits provide a strong incentive for the development of databases that augment disk storage with technologies better suited to large volumes of data. In particular, the seamless incorporation of tape storage into database systems would be of great value. Tape storage is two orders of magnitude more efficient ...

##### 8 Highly available systems for database applications



 Won Kim  
March 1984 **ACM Computing Surveys (CSUR)**, Volume 16 Issue 1

**Publisher:** ACM Press

Full text available:  [pdf\(2.43 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

As users entrust more and more of their applications to computer systems, the need for systems that are continuously operational (24 hours per day) has become even greater. This paper presents a survey and analysis of representative architectures and techniques that have been developed for constructing highly available systems for database applications. It then proposes a design of a distributed software subsystem that can serve



as a unified framework for constructing database applica ...

9 Storage systems for national information assets ☐


R. A. Coyne, H. Hulen, R. Watson

December 1992 **Proceedings of the 1992 ACM/IEEE conference on Supercomputing**

**Publisher:** IEEE Computer Society Press

Full text available:  [pdf\(725.87 KB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

10 Optical storage of page images and pictorial data - opportunities and needed ☐

 advances in information retrieval

William R. Nugent, Jessica R. Harding

October 1983 **ACM SIGCOMM Computer Communication Review , Proceedings of the eighth symposium on Data communications SIGCOMM '83**, Volume 13 Issue 4

**Publisher:** ACM Press

Full text available:  [pdf\(396.98 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

We describe two current development projects at the Library of Congress using high-density optical storage, both of which require more advanced and improved computer-based information retrieval methodologies than existing bibliographic retrieval systems. A much greater emphasis will be placed on the information content of the articles rather than on the broad subject categories in general use for computer retrieval citations to book materials. Needed approaches include the linking of select ...

11 Functional optimization for fair surface design ☐


 Henry P. Moreton, Carlo H. Séquin

July 1992 **ACM SIGGRAPH Computer Graphics , Proceedings of the 19th annual conference on Computer graphics and interactive techniques SIGGRAPH '92**, Volume 26 Issue 2

**Publisher:** ACM Press

Full text available:  [pdf\(5.51 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

12 The BBFS Filesystem Model ☐

 Bruce K. Hillyer, Bethany S. Robinson


April 1992 **ACM SIGOPS Operating Systems Review**, Volume 26 Issue 2

**Publisher:** ACM Press

Full text available:  [pdf\(92.83 KB\)](#) Additional Information: [full citation](#), [abstract](#)

BBFS is a broadband filesystem research effort to support emerging applications that place intense demands on communications, computation, and data storage. Past research often addresses these needs with new special-purpose filesystems, such as transactional filesystems, replicated filesystems, real-time filesystems, and multimedia filesystems. A goal of BBFS is to be extensible so new mechanisms can be incorporated into a stable filesystem model.

13 A methodology for creating user views in database design ☐

 Veda C. Storey, Robert C. Goldstein

September 1988 **ACM Transactions on Database Systems (TODS)**, Volume 13 Issue 3

**Publisher:** ACM Press

Full text available:  [pdf\(2.41 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

The View Creation System (VCS) is an expert system that engages a user in a dialogue

about the information requirements for some application, develops an Entity-Relationship model for the user's database view, and then converts the E-R model to a set of Fourth Normal Form relations. This paper describes the knowledge base of VCS. That is, it presents a formal methodology, capable of mechanization as a computer program, for accepting requirements from a user, identifying and resolving incons ...

#### 14 Codes for the Classical Membrane Problem



C. L. Gerberich, W. C. Sangren

October 1957 **Journal of the ACM (JACM)**, Volume 4 Issue 4

**Publisher:** ACM Press

Full text available: [pdf\(396.05 KB\)](#) Additional Information: [full citation](#), [references](#), [index terms](#)

#### 15 A hierarchical decomposition methodology for multistage clock circuits



Gary Ellis, Lawrence T. Pileggi, Rob A. Rutenbar

November 1997 **Proceedings of the 1997 IEEE/ACM international conference on Computer-aided design**

**Publisher:** IEEE Computer Society

Full text available: [pdf\(149.54 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)  
[Publisher Site](#)

This paper describes a novel methodology to automate the design of the interconnect distribution for multistage clock circuits. We introduce two key ideas. First, a hierarchical decomposition of the layout divides the problem into a set of local Steiner-wired latch clusters (to minimize and balance local capacitance) fed globally by a balanced binary tree (to maximize performance). Second, we recast the global clock distribution problem as a simultaneous optimization of clock topology, clock seg ...

**Keywords:** clock, routing, performance driven router, manufacturability, process variations

#### 16 TCP extensions for space communications



Robert C. Durst, Gregory J. Miller, Eric J. Travis

October 1997 **Wireless Networks**, Volume 3 Issue 5

**Publisher:** Kluwer Academic Publishers

Full text available: [pdf\(375.24 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

The space communication environment and mobile and wireless communication environments show many similarities when observed from the perspective of a transport protocol. Both types of environments exhibit loss caused by data corruption and link outage, in addition to congestion-related loss. The constraints imposed by the two environments are also similar—power, weight, and physical volume of equipment are scarce resources. Finally, it is not uncommon for communication channel data ra ...

#### 17 Fast collision detection among multiple moving spheres



Dong Jin Kim, Leonidas J. Guibas, Sung Yong Shin

August 1997 **Proceedings of the thirteenth annual symposium on Computational geometry**

**Publisher:** ACM Press

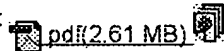
Full text available: [pdf\(689.27 KB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

18 [A fast Gibbs sampler for synthesizing constrained fractals](#) ☐

Baba C. Vemuri, Chhandomay Mandal

October 1996 **Proceedings of the 7th conference on Visualization '96****Publisher:** IEEE Computer Society Press

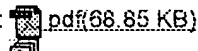
Full text available:

[Publisher Site](#)Additional Information: [full citation](#), [references](#), [index terms](#)19 [Optimization of custom MOS circuits by transistor sizing](#) ☐

Andrew R. Conn, Paula K. Coulman, Ruud A. Haring, Gregory L. Morrill, Chandu Visweswariah

January 1997 **Proceedings of the 1996 IEEE/ACM international conference on****Computer-aided design****Publisher:** IEEE Computer Society

Full text available:

[Publisher Site](#)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

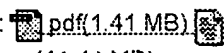
Optimization of a circuit by transistor sizing is often a slow, tedious and iterative manual process which relies on designer intuition. Circuit simulation is carried out in the inner loop of this tuning procedure. Automating the transistor sizing process is an important step towards being able to rapidly design high-performance, custom circuits. JiffyTune is a new circuit optimization tool that automates the tuning task. Delay, rise/fall time, area and power targets are accommodated. Each (weig ...

**Keywords:** Circuits, transistor sizing, optimization, simulation, gradients.20 [Free-form shape design using triangulated surfaces](#) ☐

William Welch, Andrew Witkin

July 1994 **Proceedings of the 21st annual conference on Computer graphics and interactive techniques****Publisher:** ACM Press

Full text available:

[ps\(11.44 MB\)](#)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We present an approach to modeling with truly mutable yet completely controllable free-form surfaces of arbitrary topology. Surfaces may be pinned down at points and along curves, cut up and smoothly welded back together, and faired and reshaped in the large. This style of control is formulated as a constrained shape optimization, with minimization of squared principal curvatures yielding graceful shapes that are free of the parameterization worries accompanying many patch-based approaches. ...

**Keywords:** Delaunay triangulation, adaptive meshing, fair surface design, functional minimization, polygonal models

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### 1 [The high performance storage system](#)



R. A. Coyne, H. Hulen, R. Watson

December 1993 **Proceedings of the 1993 ACM/IEEE conference on Supercomputing**

Publisher: ACM Press

Full text available: pdf(1.05 MB)

Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

### 2 [Storage systems for national information assets](#)



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December 1992 **Proceedings of the 1992 ACM/IEEE conference on Supercomputing**

Publisher: IEEE Computer Society Press

Full text available: pdf(725.87 KB)

Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

### 3 [Market strategy via simulation](#)



K. Roscoe Davis

January 1974 **Proceedings of the 7th conference on Winter simulation - Volume 2**

Publisher: ACM Press

Full text available: pdf(773.42 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

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### 4 [Sorting nonredundant files—techniques used in the FACT compiler](#)



John B. Glore

May 1963 **Communications of the ACM**, Volume 6 Issue 5


Publisher: ACM Press

Full text available: pdf(1.02 MB)

Additional Information: [full citation](#), [abstract](#), [citations](#)

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5 Pilot: an operating system for a personal computer ☐

 David D. Redell, Yogen K. Dalal, Thomas R. Horsley, Hugh C. Lauer, William C. Lynch, Paul R. McJones, Hal G. Murray, Stephen C. Purcell

February 1980 **Communications of the ACM**, Volume 23 Issue 2

**Publisher:** ACM Press

Full text available:  [pdf\(1.14 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#)


**Keywords:** file, high-level language, modular programming, network, operating system, personal computer, process, system structure, virtual memory

6 Creating volume models from edge-vertex graphs ☐

 Patrick M. Hanrahan


July 1982 **ACM SIGGRAPH Computer Graphics , Proceedings of the 9th annual conference on Computer graphics and interactive techniques SIGGRAPH '82**, Volume 16 Issue 3

**Publisher:** ACM Press

Full text available:  [pdf\(740.65 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)


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7 Random I/O scheduling in online tertiary storage systems ☐

 Bruce K. Hillyer, Avi Silberschatz


June 1996 **ACM SIGMOD Record , Proceedings of the 1996 ACM SIGMOD international conference on Management of data SIGMOD '96**, Volume 25 Issue 2

**Publisher:** ACM Press

Full text available:  [pdf\(1.17 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

New database applications that require the storage and retrieval of many terabytes of data are reaching the limits for disk-based storage systems, in terms of both cost and scalability. These limits provide a strong incentive for the development of databases that augment disk storage with technologies better suited to large volumes of data. In particular, the seamless incorporation of tape storage into database systems would be of great value. Tape storage is two orders of magnitude more efficie ...

8 Highly available systems for database applications ☐

 Won Kim

March 1984 **ACM Computing Surveys (CSUR)**, Volume 16 Issue 1

**Publisher:** ACM Press

Full text available:  [pdf\(2.43 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

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as a unified framework for constructing database applica ...

9 Optical storage of page images and pictorial data - opportunities and needed



advances in information retrieval

William R. Nugent, Jessica R. Harding

October 1983 **ACM SIGCOMM Computer Communication Review , Proceedings of the eighth symposium on Data communications SIGCOMM '83**, Volume 13 Issue 4

**Publisher:** ACM Press

Full text available: pdf(396.98 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

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Henry P. Moreton, Carlo H. Séquin

July 1992 **ACM SIGGRAPH Computer Graphics , Proceedings of the 19th annual conference on Computer graphics and interactive techniques SIGGRAPH '92**, Volume 26 Issue 2

**Publisher:** ACM Press

Full text available: pdf(5.51 MB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

11 The BBFS Filesystem Model



Bruce K. Hillyer, Bethany S. Robinson

April 1992 **ACM SIGOPS Operating Systems Review**, Volume 26 Issue 2

**Publisher:** ACM Press

Full text available: pdf(92.83 KB) Additional Information: [full citation](#), [abstract](#)

BBFS is a broadband filesystem research effort to support emerging applications that place intense demands on communications, computation, and data storage. Past research often addresses these needs with new special-purpose filesystems, such as transactional filesystems, replicated filesystems, real-time filesystems, and multimedia filesystems. A goal of BBFS is to be extensible so new mechanisms can be incorporated into a stable filesystem model.

12 A methodology for creating user views in database design



Veda C. Storey, Robert C. Goldstein

September 1988 **ACM Transactions on Database Systems (TODS)**, Volume 13 Issue 3

**Publisher:** ACM Press

Full text available: pdf(2.41 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

The View Creation System (VCS) is an expert system that engages a user in a dialogue about the information requirements for some application, develops an Entity-Relationship model for the user's database view, and then converts the E-R model to a set of Fourth Normal Form relations. This paper describes the knowledge base of VCS. That is, it presents a formal methodology, capable of mechanization as a computer program, for accepting requirements from a user, identifying and resolving incons ...

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Codes for the Classical Membrane Problem



C. L. Gerberich, W. C. Sangren

October 1957 **Journal of the ACM (JACM)**, Volume 4 Issue 4**Publisher:** ACM PressFull text available: pdf(396.05 KB) Additional Information: [full citation](#), [references](#), [index terms](#)**14** A hierarchical decomposition methodology for multistage clock circuits

Gary Ellis, Lawrence T. Pileggi, Rob A. Rutenbar

November 1997 **Proceedings of the 1997 IEEE/ACM international conference on Computer-aided design****Publisher:** IEEE Computer SocietyFull text available: pdf(149.54 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)  
 [Publisher Site](#)

This paper describes a novel methodology to automate the design of the interconnect distribution for multistage clock circuits. We introduce two key ideas. First, a hierarchical decomposition of the layout divides the problem into a set of local Steiner-wired latch clusters (to minimize and balance local capacitance) fed globally by a balanced binary tree (to maximize performance). Second, we recast the global clock distribution problem as a simultaneous optimization of clock topology, clock seg ...

**Keywords:** clock, routing, performance driven router, manufacturability, process variations

**15** TCP extensions for space communications

Robert C. Durst, Gregory J. Miller, Eric J. Travis

October 1997 **Wireless Networks**, Volume 3 Issue 5**Publisher:** Kluwer Academic PublishersFull text available: pdf(375.24 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

The space communication environment and mobile and wireless communication environments show many similarities when observed from the perspective of a transport protocol. Both types of environments exhibit loss caused by data corruption and link outage, in addition to congestion-related loss. The constraints imposed by the two environments are also similar—power, weight, and physical volume of equipment are scarce resources. Finally, it is not uncommon for communication channel data ra ...

**16** Fast collision detection among multiple moving spheres 

Dong Jin Kim, Leonidas J. Guibas, Sung Yong Shin

August 1997 **Proceedings of the thirteenth annual symposium on Computational geometry****Publisher:** ACM PressFull text available: pdf(689.27 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)**17** A fast Gibbs sampler for synthesizing constrained fractals


Baba C. Vemuri, Chhandomay Mandal

October 1996 **Proceedings of the 7th conference on Visualization '96****Publisher:** IEEE Computer Society PressFull text available: pdf(2.61 MB) [Publisher Site](#) Additional Information: [full citation](#), [references](#), [index terms](#)

18 Optimization of custom MOS circuits by transistor sizing

Andrew R. Conn, Paula K. Coulman, Ruud A. Haring, Gregory L. Morrill, Chandu Visweswariah  
 January 1997 **Proceedings of the 1996 IEEE/ACM international conference on Computer-aided design**


**Publisher:** IEEE Computer Society

Full text available:  pdf(68.85 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)  
 [Publisher Site](#)



Optimization of a circuit by transistor sizing is often a slow, tedious and iterative manual process which relies on designer intuition. Circuit simulation is carried out in the inner loop of this tuning procedure. Automating the transistor sizing process is an important step towards being able to rapidly design high-performance, custom circuits. JiffyTune is a new circuit optimization tool that automates the tuning task. Delay, rise/fall time, area and power targets are accommodated. Each (weig ...

**Keywords:** Circuits, transistor sizing, optimization, simulation, gradients.

19 Free-form shape design using triangulated surfaces

 William Welch, Andrew Witkin  
 July 1994 **Proceedings of the 21st annual conference on Computer graphics and interactive techniques**

**Publisher:** ACM Press

Full text available:  pdf(1.41 MB)  ps(11.44 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We present an approach to modeling with truly mutable yet completely controllable free-form surfaces of arbitrary topology. Surfaces may be pinned down at points and along curves, cut up and smoothly welded back together, and faired and reshaped in the large. This style of control is formulated as a constrained shape optimization, with minimization of squared principal curvatures yielding graceful shapes that are free of the parameterization worries accompanying many patch-based approaches. ...

**Keywords:** Delaunay triangulation, adaptive meshing, fair surface design, functional minimization, polygonal models

Results 1 - 19 of 19

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